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U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/019,409	Masahiro Iwakura	04853.0084

INTERNATIONAL APPLICATION NO.

PCT/JP00/02112

I.A. FILING DATE

PRIORITY DATE

03/31/2000

06/29/1999

Ernest F Chapman
 finnegan Henderson Farabow Garrett & Dunner
 1300 I Street NW
 Washington, DC 20005-3315

CONFIRMATION NO. 3873

371 FORMALITIES LETTER



OC000000007612397

Date Mailed: 03/12/2002

NOTIFICATION OF MISSING REQUIREMENTS UNDER 35 U.S.C. 371 IN THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US)

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as an Elected Office (37 CFR 1.495):

- U.S. Basic National Fees
- Priority Document
- Assignee Statement
- Biochemical Sequence Diskette
- Biochemical Sequence Listing
- Copy of IPE Report
- Copy of references cited in ISR
- Copy of the International Application
- Copy of the International Search Report
- Oath or Declaration

RECEIVED

MAR 18 2002

FINNEGAN, HENDERSON,
 FARABOW, GARRETT & DUNNER, LLP.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

ALL OF THE ITEMS SET FORTH ABOVE MUST BE SUBMITTED WITHIN TWO (2) MONTH FROM THE DATE OF THIS NOTICE OR BY 22 or 32 MONTHS (where 37 CFR 1.495 applies) FROM THE PRIORITY DATE FOR THE APPLICATION, WHICHEVER IS LATER. FAILURE TO PROPERLY RESPOND WILL RESULT IN ABANDONMENT.

The time period set above may be extended by filing a petition and fee for extension of time under the provisions of 37 CFR 1.136(a).

The following items **MUST** be furnished within the period set forth below:

- The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821-1.825 for the following reason(s):

- A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
- See attached Raw Sequence Listing Error Report.
- APPLICANT MUST PROVIDE:
 - An initial or substitute paper copy or compact disc of the "Sequence Listing," as well as an amendment directing its entry into the specification.
 - A statement that the contents of the paper or compact disc and the computer readable form are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b) or 1.825(d).

• For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase PatentIn Software, call (703) 306-2600
- For PatentIn Software Program Help, call (703) 306-4119 or e-mail at patin21help@uspto.gov or patin3help@uspto.gov

- A copy of the "Sequence Listing" in computer readable form has been submitted. The content of the computer readable form, however, does not comply with the requirements of 37 CFR 1.822 and/or 1.832, as indicated on the attached marked-up copy of the "Raw Sequence Listing."

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

BARBARA A CAMPBELL

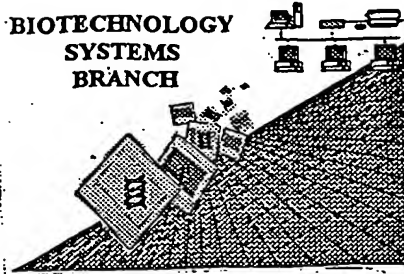
Telephone: (703) 305-3631

PART 1 - ATTORNEY/APPLICANT COPY

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/019,409	PCT/JP00/02112	04853.0084

FORM PCT/DO/EO/905 (371 Formalities Notice)

Docketed 3-18-02 Attorney JBF/NMF/USO
 Case 4853.0084
 Due Date 5-12-02 W/EST
 Action Seq LISTING
 By J AK



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/019,409
Source: PT/10
Date Processed by STIC: 1/22/2002

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom, including:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7th Floor, Examiner Name,
Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202
Or
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202



PCT10

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/019,409

DATE: 01/22/2002
TIME: 10:40:21

pg 1-3

Input Set : A:\Es.txt
Output Set: N:\CRF3\01182002\J019409.raw

Does Not Comply
Corrected Diskette Needed

2 <110> APPLICANT: Japan as Represented by Secretary of Agency of Industrial Science and
3 Technology
--> 4 <120> TITLE OF INVENTION: Sulphur Free Enzyme
--> 5 <130> FILE REFERENCE: PH-911-PCT
--> 6 <140> CURRENT APPLICATION NUMBER:
--> 7 <141> CURRENT FILING DATE: 2001-12-28
8 <150> PRIOR APPLICATION NUMBER: JP99/183664
--> 9 <151> PRIOR FILING DATE: 29-JUN-1999 1999-06-29 ← use this date format
--> 10 <160> NUMBER OF SEQ ID: 10
11 <170> SOFTWARE: PatentIn Ver. 2.0

Suggestion: Consult sequence rules for valid format

RRORED SEQUENCES

40 <210> SEQ ID NO: 2
41 <211> LENGTH: 566
42 <212> TYPE: DNA
43 <213> ORGANISM: E. coli → <220> ← insert this mandatory numeric identifier whenever
44 <221> NAME/KEY: CDS
45 <222> LOCATION: (81)...(557)
--> 46 <400> SEQUENCE: 2
--> 47 ggatccttga caattagtta actatttgtt ataatgtatt catgagctta actaactaat
--> 48 ccggaagg aggaacttcc atgacagtc tgattgcggc gctagcggta gatcgcgta
--> 49 tcggcatgga aaacgccatg ccatggaacc tgcccgccga tctcgccgtg tttaaaccga
--> 50 acaccttaaa taaacccgtg attatggggc gccatacctg ggaatcaatc ggtaggcctt
--> 51 tgcccgcccg caaaaatatt atcctcagca gtcaaccccg gaccgatgat cgggttacct
--> 52 ggggttaaate ggtcgacgaa gccatcgcg cgcaggtga cgtaccagaa atcatggtga
--> 53 ttggcgccg acgcgtttat gaacagttct tgccaaaagc gcaaaagctt tatctgacgc
--> 54 atatcgatgc agaagtggaa ggcgacaccc attttccgga ttacgagccg gatgactggg
--> 55 aatcgggtatt cagcgaattc cagcatgctg atgcgcagaa ctgcgatagc tattcggtcg
--> 56 aaatcctcga gcgtcggttaa ggatec
90 <210> SEQ ID NO: 4
91 <211> LENGTH: 558
92 <212> TYPE: DNA
93 <213> ORGANISM: B. subtilis → <220> ← insert
94 <221> NAME/KEY: CDS
95 <222> LOCATION: (1)...(555)
--> 96 <400> SEQUENCE: 4
--> 97 gctagcacag actactggca aaattggact gatgggggag gtatagtaaa cgctgtcaat
--> 98 ggggtctggc ggaattacag tgttaattgg tctaataccg gaaattttgt tgttggttaa
--> 99 ggttggaata caggttcgcc atttaggacg ataaactata atgccggagt ttgggcgcgc
--> 100 aatggcaatg gatatttaac tttatatggt tggacgagat cacctctcat agaattattat
--> 101 gtagtggatt catgggggtac ttatagacct actggaacgt ataaaggtag tgtaaaaagt

60
120
← 2217, 2227, or 2237 is shown
insert cumulative nucleotide total at right margin of each line

same error as above

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/019,409

DATE: 01/22/2002
TIME: 10:40:21

Input Set : A:\Es.txt
Output Set: N:\CRF3\01182002\J019409.raw

```
--> 102 gatgggggta catatgacat atatacaact acacgttata acgcaccttc cattgatggc
--> 103 gatcgcaacta cttttacgca gtactggagt gttcgccagt cgaagagacc aaccggaagc
--> 104 aacgctacaa tcactttcag caatcatgtg aacgcatgga agagccatgg aatgaatctg
--> 105 ggcagtaatt gggcttacca agtcatggcg acagaaggat atcaaagtag tggctcgtcg
--> 106 aatgttaccg tatggtaa
```

same

```
136 <210> SEQ ID NO: 6
137 <211> LENGTH: 569
138 <212> TYPE: DNA
139 <213> ORGANISM: E. coli
140 <221> NAME/KEY: CDS
141 <222> LOCATION: (81)...(560)
```

> 2207

```
--> 142 <400> SEQUENCE: 6
--> 143 ggatccttga caattagtta actatttggtt ataatgtatt catgagctta actaactaat
--> 144 ccgaaaaagg aggaacttcc atggcaatca gtctgattgc ggcgctagcg gtagatcgcg
--> 145 ttatcgccaa cgaaaacgcc ctcccatgga acctgcctgc cgatctcgcc tggtttaaac
--> 146 gcaacacctt aaataaaccc gtgatttacg ggcgccatac ctgggaatca atcggtaggc
--> 147 ctttgcccg cgcaaaaat attatcctca gcagtcaacc cgggaccgat gatcgggtta
--> 148 cctgggttaa atcggtcgac gaagccatcg cggccgcagg tgacgtacca gaaatcttcg
--> 149 tgattggcgg cggacgcgtt tatgaacagt tcttgccaaa agcgcaaaag ctttatctga
--> 150 cgcatactga tgcagaagtg gaaggcgaca cccattttcc ggattacgag ccggatgact
--> 151 gggaaatcgg attcagcgaa ttccacgatg ctgatgcgca gaactcgcat agctattcgt
--> 152 tcgaaatect cgagcgtcgt taaggatcc
```

*same
error*

as above

```
208 <210> SEQ ID NO: 8
209 <211> LENGTH: 1153
210 <212> TYPE: DNA
```

--> 211 <213> ORGANISM: *← MANDATORY response needed (this error also exists in seqs 7-10)*

```
--> 212 <400> SEQUENCE: 8
```

```
--> 213 ggatccttga caattagtta actatttggtt ataatgtatt catgagctta actaactaat
--> 214 ccgaaaaagg aggaacttcc atggcaatca gtctgattgc ggcgctagcg gtagatcgcg
--> 215 ttatcgccaa cgaaaacgcc ctcccatgga acctgcctgc cgatctcgcc tggtttaaac
--> 216 gcaacacctt aaataaaccc gtgatttacg ggcgccatac ctgggaatca atcggtaggc
--> 217 ctttgcccg cgcaaaaat attatcctca gcagtcaacc cgggaccgat gatcgggtta
--> 218 cctgggttaa atcggtcgac gaagccatcg cggccgcagg tgacgtacca gaaatcttcg
--> 219 tgattggcgg cggacgcgtt tatgaacagt tcttgccaaa agcgcaaaag ctttatctga
--> 220 cgcatactga tgcagaagtg gaaggcgaca cccattttcc ggattacgag ccggatgact
--> 221 gggaaatcgg attcagcgaa ttccacgatg ctgatgcgca gaactcgcat agctattcgt
--> 222 tcgaaatect cgagcgtcgt ggtggcggtg gctcgggtgg tggcggcgct agcacagact
--> 223 actggcaaaa ttggactgat gggggcggtg tagtaaacgc tgtcaatggg tctggcggtg
--> 224 attacagtgt taattggtct aataccggaa attttgtgtg tggtaaagg tggactacag
--> 225 gtccgccatt taggacgata aactataatg ccggagtttg ggcgccgaat ggcaatggat
--> 226 atttaacttt atatggttgg acgagatcac ctctcataga atattatgta gtggattcat
--> 227 ggggtactta tagacctact ggaacgtata aagggtactgt aaaaagtgat gggggtacat
--> 228 atgacatata tacaactaca cgttataacg caccctccat tgatggcgat cgcactactt
--> 229 ttacgcagta ctggagtgtt cgccagtcga agagaccaac cggaagcaac gctacaatca
--> 230 ctttcagcaa tcatgtgaac gcatggaaga gccatggaat gaatctgggc agtaattggg
--> 231 cttaccaagt catggcgaca gaaggatatc aaagtagtgg ctcgtcgaat gttaccgtat
--> 232 ggtaaggatc ccc
```

*same
error*

*(insert
cumulative
nucleotide
totals)*

```
288 <210> SEQ ID NO: 10
289 <211> LENGTH: 1153
```

P.3

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/019,409

DATE: 01/22/2002
TIME: 10:40:21

Input Set : A:\Es.txt
Output Set: N:\CRF3\01182002\J019409.raw

```

290 <212> TYPE: DNA
--> 291 <213> ORGANISM: ← insert mandatory response
--> 292 <400> SEQUENCE: 10
--> 293 ggatccttga caattagtta actatttgtt ataatgtatt catgagctta actaactaat
--> 294 ccggaaaagg aggaacttcc atggcaatca gtctgattgc ggcgctagcg gtagatcgcg
--> 295 ttatcggcaa cgaaaacgcc ctcccatgga acctgcctgc cgatctcgcc tggtttaaac
--> 296 gcaacacctt aaataaaccc gtgatttacg ggcgccatac ctgggaatca atcggtaggc
--> 297 ctttgcccgg ccgcaaaaat attatcctca gcagtcaacc cgggaccgat gatcgggtta
--> 298 cctgggttaa atcggtcgac gaagccatcg cggcgcgagg tgacgtacca gaaatcttcg
--> 299 tgattggcgg cggacgcggt tatgaacagt tcttgccaaa agcgcaaaag ctttatctga
--> 300 cgcatatcga tgcagaagtg gaaggcgaca cccattttcc ggattacgag ccggatgact
--> 301 gggaatcggg attcagcgaa ttccacgatg ctgatgcgca gaactcgcat agctattcgt
--> 302 tcgaaatect cgagcgtcgt ggtggcggtg gctcgggtgg tggcggcgct agcacagact
--> 303 actggcaaaa ttggactgat gggggcggtg tagtaaacgc tgtcaatggg tctggcggga
--> 304 attacagtgt taattggtct aataccggaa attttggtgt tggtaaagggt tggactacag
--> 305 gttcgccatt taggacgata aactataatg ccggagtttg ggcgccgaat ggcaatggat
--> 306 atttaacttt atatggttgg acgagatcac ctctcataga atattatgta gtggattcat
--> 307 ggggtactta tagacctact ggaacgtata aagggtactgt aaaaagtgat gggggtacat
--> 308 atgacatata tacaactaca cgttataacg caccttccat tgatggcgat cgcactactt
--> 309 ttacgcagta ctggagtgtt cgccagtcga agagaccaac cggaagcaac gctacaatca
--> 310 ctttcagcaa tcatgtgaac gcatggaaga gccatggact caatctgggc agtaattggg
--> 311 cttaccaagt catcgcgaca gaaggatatc aaagtagtgg ctcgtcgaat gttaccgtat
--> 312 ggtaaggtac ccc

```

*insert
cumulative
totals
at right
margin of
each line*

VERIFICATION SUMMARY

DATE: 01/22/2002

PATENT APPLICATION: US/10/019,409

TIME: 10:40:22

Input Set : A:\Es.txt

Output Set: N:\CRF3\01182002\J019409.raw

:4 M:283 W: Missing Blank Line separator, <120> field identifier
:5 M:283 W: Missing Blank Line separator, <130> field identifier
:6 M:283 W: Missing Blank Line separator, <140> field identifier
:7 M:271 C: Current Filing Date differs, Replaced Current Filing Date
:9 M:256 W: Invalid Numeric Header Field, Wrong Prior FILING DATE:YYYY-MM-DD
:10 M:283 W: Missing Blank Line separator, <160> field identifier
:12 M:283 W: Missing Blank Line separator, <210> field identifier
:16 M:283 W: Missing Blank Line separator, <400> field identifier
:46 M:283 W: Missing Blank Line separator, <400> field identifier
:47 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:2
:254 Repeated in SeqNo=2
:62 M:283 W: Missing Blank Line separator, <400> field identifier
:96 M:283 W: Missing Blank Line separator, <400> field identifier
:97 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:4
:254 Repeated in SeqNo=4
:112 M:283 W: Missing Blank Line separator, <400> field identifier
:142 M:283 W: Missing Blank Line separator, <400> field identifier
:143 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:6
:254 Repeated in SeqNo=6
:157 M:201 W: Mandatory field data missing, <213> ORGANISM
:158 M:283 W: Missing Blank Line separator, <400> field identifier
:211 M:201 W: Mandatory field data missing, <213> ORGANISM
:212 M:283 W: Missing Blank Line separator, <400> field identifier
:213 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:8
:254 Repeated in SeqNo=8
:237 M:201 W: Mandatory field data missing, <213> ORGANISM
:238 M:283 W: Missing Blank Line separator, <400> field identifier
:291 M:201 W: Mandatory field data missing, <213> ORGANISM
:292 M:283 W: Missing Blank Line separator, <400> field identifier
:293 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:10
:254 Repeated in SeqNo=10